WHAT IS CLAIMED IS:

1. A picture encoding apparatus for forming an encoded picture signal of a layer structure composed of a plurality of layers, comprising:

memory means for storing first control data included in header data of a predetermined layer subsequently to identification data;

comparator means for comparing the first control data with second control data included in the next header data of said predetermined layer subsequently to the identification data; and

encoding means so operated as to transmit neither the identification data nor the second control data when the first control data and the second control data are mutually the same, or to transmit both the identification data and the second control data when the first control data and the second control data are different from each other.

2. The picture encoding apparatus according to claim 1, wherein said predetermined layer is one of a video sequence layer, a GOP (group of pictures) layer, a picture layer and a slice layer.

3. A picture decoding apparatus for decoding an encoded picture signal of a layer structure composed of a plurality of layers, comprising:

memory means for storing control data included in header data of a predetermined layer subsequently to identification data; and

decoding means for decoding the encoded picture signal by using, when none of the control data is existent in the next header data of said predetermined layer, the preceding control data stored in said memory means.

4. The picture decoding apparatus according to claim 3, wherein said decoding means detects the nonexistence of the control data when the identification data is not existent.

5. The picture decoding apparatus according to claim 3, wherein said predetermined layer is one of a video sequence layer, a GOP layer, a picture layer and a slice layer.

6. A picture recording medium having an encoded picture signal of a layer structure composed of a plurality of layers, comprising:

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a first encoded picture signal of a predetermined layer including identification data and control data subsequent thereto; and

a second encoded picture signal of a layer being the same in kind as said predetermined layer and including none of the identification data and the control data.

7. The picture recording medium according to claim 6, wherein said predetermined layer is one of a video sequence layer, a GOP layer, a picture layer and a slice layer.

8. A picture encoding method for forming an encoded picture signal of a layer structure composed of a plurality of layers, comprising the steps of:

comparing first control data, which is included in header data of a predetermined layer subsequently to identification data, with second control data included in the next header data of said predetermined layer subsequently to the identification data; and

encoding the identification data and the second control data only when the first control data and the second control data are different from each other.

9. The picture encoding method according to claim 8, wherein said predetermined layer is one of a video sequence layer, a GOP layer, a picture layer and a slice layer.

10. A picture decoding methods for decoding an encoded picture signal of a layer structure composed of a plurality of layers, comprising the steps of:

storing first control data included in header data of a predetermined layer subsequently to identification data; and

decoding the encoded picture signal by using the stored control data when none of the control data is existent in the next header data of a layer being the same in kind to said predetermined layer.

11. The picture decoding method according to claim 10, further comprising the step of detecting the nonexistence of the control data when the identification data is not existent.

12. The picture decoding method according to claim 10, wherein said predetermined layer is one of a video sequence layer, a GOP layer, a picture layer and a slice layer.

13. A picture signal transmission method for transmitting encoded picture data of a layer structure

composed of a plurality of layers, comprising the steps of:

transmitting a first encoded picture signal of a predetermined layer which includes identification data and control data subsequent thereto; and

transmitting a second encoded picture signal of a layer being the same in kind as said predetermined layer and including none of the identification data and the control data.

14. The picture signal transmission method according to claim 13, wherein said predetermined layer is one of a video sequence layer, a GOP layer, a picture layer and a slice layer.